Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled)

2. (currently amended): The method of ~~claim 1~~ claim 34 wherein ~~the~~ step (d) ~~of extracting data~~ is performed using a multi-user detector (MUD).

3. (currently amended): The method of claim 2 further comprising:

(g) ~~(e)~~ passing the soft symbol estimates to the MUD, wherein the MUD does not repeat the computation of soft symbols of each received code.

Claims 4 and 5 (canceled)

6. (currently amended): The method of ~~claim 1~~ claim 34 wherein the soft symbol estimates are used to perform a discontinuous transmission (DTX) detection code energy measurement.

7. (currently amended): The method of ~~claim 1~~ claim 34 wherein the soft symbol estimates are based on whitening matched filter (WMF) outputs.

Claim 8 (canceled)

9. (currently amended): The method of ~~claim 8~~ claim 37 wherein ~~the~~ step (d) ~~of extracting data~~ is performed using a multi-user detector (MUD).

10. (currently amended): The method of claim 9 further comprising:

(g) ~~(e)~~ passing the soft symbol estimates to the MUD, wherein the MUD does not repeat the computation of soft symbols of each received code.

Claims 11 and 12 (canceled)

13. (currently amended): The method of ~~claim 8~~ claim 37 wherein the soft symbol estimates are used to perform a discontinuous transmission (DTX) detection code energy measurement.

14. (currently amended): The method of ~~claim 8~~ claim 37 wherein the soft symbol estimates are based on whitening matched filter (WMF) outputs.

Claim 15 (canceled)

16. (currently amended): The WTRU of ~~claim 15~~ claim 40 wherein the means for extracting data is a multi-user detector (MUD).

17. (currently amended): The WTRU of claim 16 further comprising:

(g) ~~(e)~~ means for passing the soft symbol estimates to the MUD, wherein the MUD does not repeat the computation of soft symbols of each received code.

Claims 18 and 19 (canceled)

20. (currently amended): The WTRU of ~~claim 15~~ claim 40 wherein the soft symbol estimates are used to perform a discontinuous transmission (DTX) detection code energy measurement.

21. (currently amended): The WTRU of ~~claim 15~~ claim 40 wherein the soft symbol estimates are based on whitening matched filter (WMF) outputs.

22. (currently amended): A wireless transmit/receive unit (WTRU) that receives a plurality of data signals distinguished by codes, the WTRU comprising:

(a) a device for constructing a system response matrix using all possible codes and channel responses associated with their codes;

(b) a whitening match filter (WMF) for performing a plurality of soft symbol estimates for symbols of each of the possible codes based on the constructed matrix~~, the soft symbol estimates being used to perform a blind code detection (BCD) code energy measurement, wherein received codes are based on the soft symbol estimates~~; and

(c) a multi-user detector (MUD) for extracting data from the matrix associated with the received codes, wherein the WMF passes the soft symbol estimates to the MUD, ~~and wherein~~ the MUD does not repeat the computation of soft symbols of each received ~~code~~ code, codes in the constructed matrix that have not been received by the WTRU are marked as being invalid, and codes in the constructed matrix that have been received by the WTRU are marked as being valid.

Claims 23 and 24 (canceled)

25. (currently amended): The IC of ~~claim 24~~ claim 45 wherein the means for extracting data is a multi-user detector (MUD).

26. (currently amended): The IC of claim 25 further comprising:

(g) ~~(e)~~ means for passing the soft symbol estimates to the MUD, wherein the MUD does not repeat the computation of soft symbols of each received code.

Claims 27 and 28 (canceled)

29. (currently amended): The IC of ~~claim 24~~ claim 45 wherein the soft symbol estimates are used to perform a discontinuous transmission (DTX) detection code energy measurement.

30. (currently amended): The IC of ~~claim 24~~ claim 45 wherein the soft symbol estimates are based on whitening matched filter (WMF) outputs.

Claims 31-33 (canceled)

34. (previously presented): In a code division multiple access (CDMA) system that receives a plurality of data signals distinguished by codes, a method comprising:

(a) constructing a system response matrix using all possible codes and channel responses associated with their codes;

(b) based on the constructed matrix, performing a plurality of soft symbol estimates for symbols of each of the possible codes;

(c) determining received codes based on the soft symbol estimates;

(d) extracting data from the matrix associated with the received codes;

(e) marking codes in the constructed matrix that have not been received by the system as being invalid; and

(f) marking codes in the constructed matrix that have been received by the system as being valid, wherein the invalid codes are not used to extract data from the matrix.

Claims 35 and 36 (canceled)

37. (previously presented): In a wireless transmit/receive unit (WTRU) that receives a plurality of data signals distinguished by codes, a method comprising:

(a) constructing a system response matrix using all possible codes and channel responses associated with their codes;

(b) based on the constructed matrix, performing a plurality of soft symbol estimates for symbols of each of the possible codes;

(c) determining received codes based on the soft symbol estimates;

(d) extracting data from the matrix associated with the received codes;

(e) marking codes in the constructed matrix that have not been received as being invalid; and

(f) marking codes in the constructed matrix that have been received as being valid, wherein the invalid codes are not used to extract data from the matrix.

Claims 38 and 39 (canceled)

40. (previously presented): A wireless transmit/receive unit (WTRU) that receives a plurality of data signals distinguished by codes, the WTRU comprising:

(a) means for constructing a system response matrix using all possible codes and channel responses associated with their codes;

(b) means for performing a plurality of soft symbol estimates for symbols of each of the possible codes based on the constructed matrix;

(c) means for determining received codes based on the soft symbol estimates; and

(d) means for extracting data from the matrix associated with the received codes;

(e) means for marking codes in the constructed matrix that have not been received by the WTRU as being invalid; and

(f) means for marking codes in the constructed matrix that have been received by the WTRU as being valid, wherein the invalid codes are not used to extract data from the matrix.

Claim 41 (canceled)

42. (previously presented): A wireless transmit/receive unit (WTRU) that receives a plurality of data signals distinguished by codes, the WTRU comprising:

(a) a device for constructing a system response matrix using all possible codes and channel responses associated with their codes; and

(b) a whitening match filter (WMF) for performing soft symbol estimates for symbols of each of the possible codes based on the constructed matrix, wherein codes in the constructed matrix that have not been received are marked as being invalid, and codes in the constructed matrix that have been received are marked as being valid.

Claims 43 and 44 (canceled)

45. (previously presented): An integrated circuit (IC) that receives a plurality of data signals distinguished by codes, the IC comprising:

(a) means for constructing a system response matrix using all possible codes and channel responses associated with their codes;

(b) means for performing a plurality of soft symbol estimates for symbols of each of the possible codes based on the constructed matrix;

(c) means for determining received codes based on the soft symbol estimates;

(d) means for extracting data from the matrix associated with the received codes;

(e) means for marking codes in the constructed matrix that have not been received as being invalid; and

(f) means for marking codes in the constructed matrix that have been received as being valid, wherein the invalid codes are not used to extract data from the matrix.

46. (previously presented): An integrated circuit (IC) that receives a plurality of data signals distinguished by codes, the IC comprising:

(a) a device for constructing a system response matrix using all possible codes and channel responses associated with their codes; and

(b) a whitening match filter (WMF) for performing soft symbol estimates for symbols of each of the possible codes based on the constructed matrix, wherein codes in the constructed matrix that have not been received are marked as being invalid, and codes in the constructed matrix that have been received are marked as being valid.

47. (new): The method of claim 22 wherein the soft symbol estimates are used to perform a blind code detection (BCD) code energy measurement.

48. (new): The method of claim 34 wherein the soft symbol estimates are used to perform a blind code detection (BCD) code energy measurement.

49. (new): The method of claim 37 wherein the soft symbol estimates are used to perform a blind code detection (BCD) code energy measurement.

50. (new): The method of claim 40 wherein the soft symbol estimates are used to perform a blind code detection (BCD) code energy measurement.

51. (new): The method of claim 45 wherein the soft symbol estimates are used to perform a blind code detection (BCD) code energy measurement.